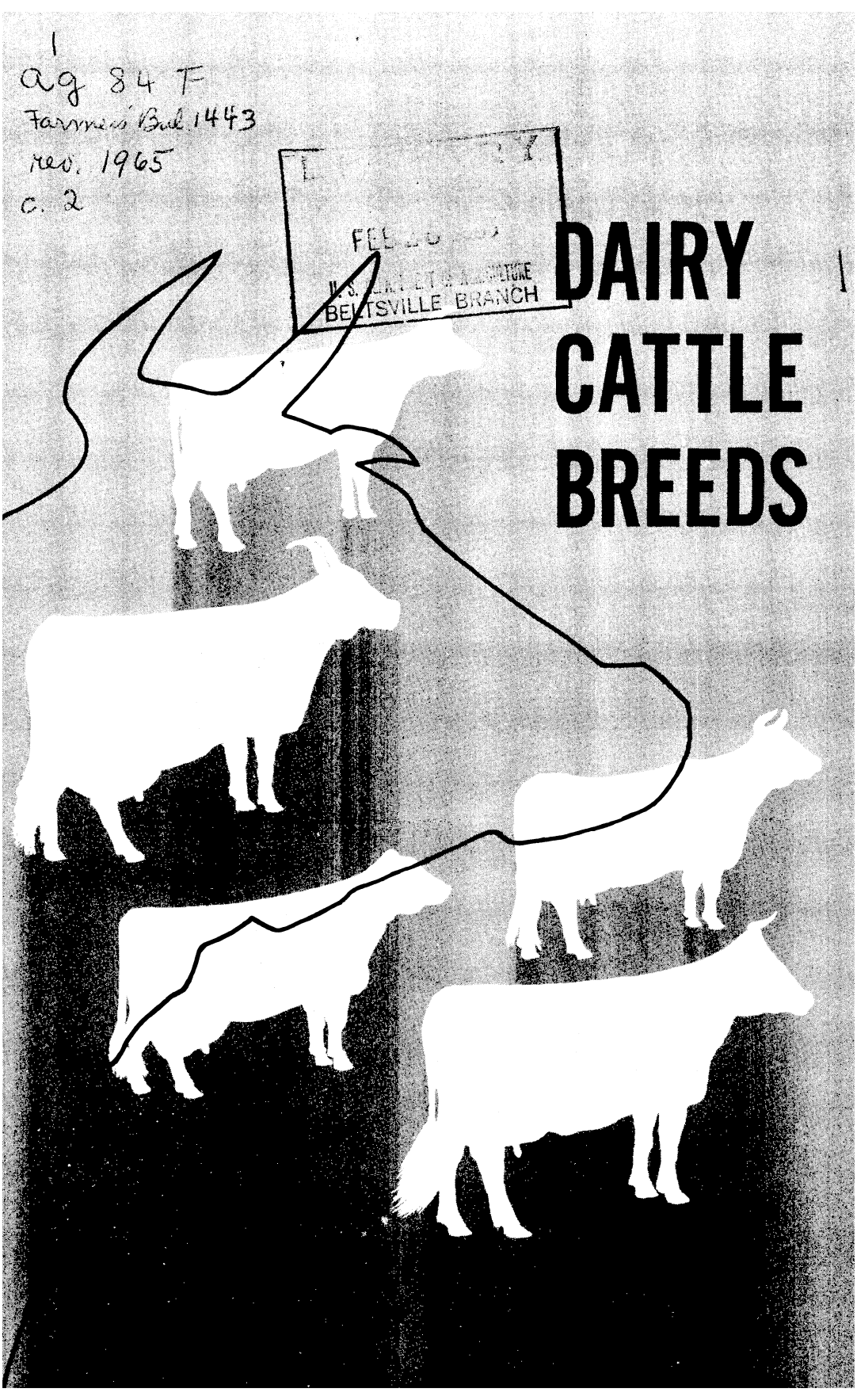
DAIRY CATTLE BREEDS



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Dairy Cattle Breeds

A modern dairy breed may be loosely defined as a "family." Like the members of a human family, all dairy cattle of a certain breed have a common origin. They also have characteristics that are readily distinguished. These characteristics include size, shape of body and horns, and color—or combinations of color in certain prescribed patterns. An individual within a breed may be a grade, a purebred, or a registered purebred (see p. 16).

BREEDS

About 70 percent of the dairy cattle in the United States are grades or purebreds of six breeds—Ayrshire, Brown Swiss, Guernsey, Holstein-Friesian, Jersey, and Red Danish.

Each breed is discussed in the following pages. Famous animals from five breeds are pictured.

Definitions for age categories used in the tables showing production appear on page 16. Production figures, except for Red Danish, were furnished by the respective breed associations. They represent average production of all registered purebred cows of the given breed on test during the herd-test year reported in 1962.

The Red Danish production figures were compiled from Dairy Herd Improvement Association (see p. 15) records for 1957.

The information on sires, except for Guernsey, was compiled from the U.S. Department of Agriculture sire summary. The figures are based on performance in artificial insemination.

The information on the Guernsey bull was furnished by the American Guernsey Cattle Club.

Breed organizations administer programs that enable breeders to determine the performance of their animals. The programs include advanced registry testing or herd improvement testing. The requirements for these official tests differ from breed to breed. Details may be secured by writing to the breed organizations. Names and addresses of six such organizations are:

The Ayrshire Breeders Association, Brandon, Vt.
The Brown Swiss Cattle Breeders Association, Beloit, Wis.
The American Guernsey Cattle Club, Peterborough, N.H.
The Holstein-Friesian Association of America, Brattleboro, Vt.
The American Jersey Cattle Club, 1521 East Broad St., Columbus, Ohio.
The American Red Danish Cattle Association, Route 3, Marlette, Mich.

Breed organizations also keep the registration records for their respective breeds. Those records include the names of animals that have qualified for additional recognition because of meritorious performance.

Figure 1.—Ayrshire cow: Crusader's Joyce of Windy Top. (Courtesy of Ayrshire Breeders Association.)

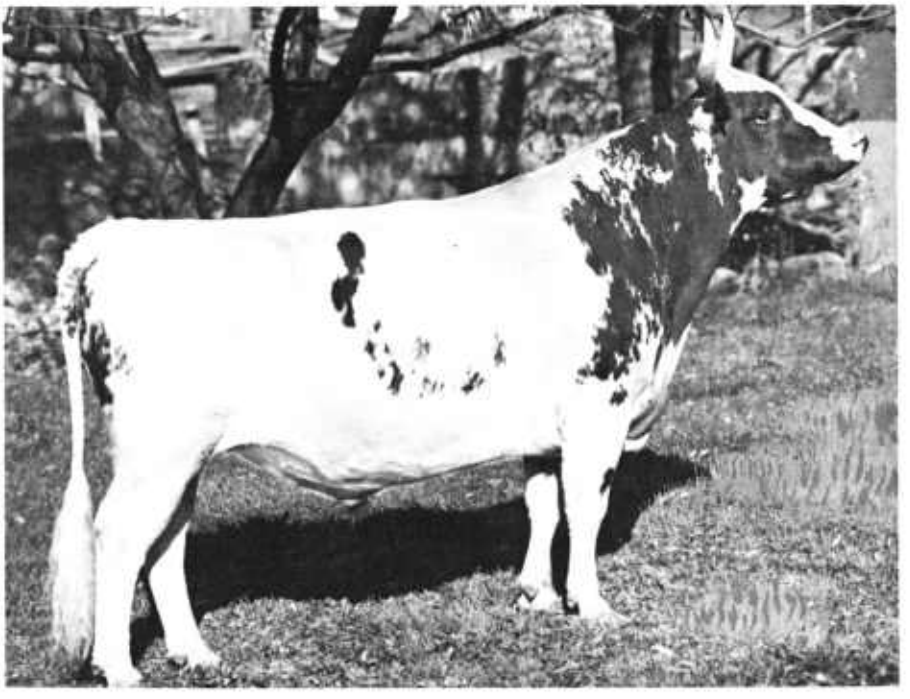

Figure 2.—Ayrshire bull: Neshaminy Preferred. (Courtesy of Ayrshire Breeders Association.)

Ayrshire

Ayrshires originated in the county of Ayr, Scotland. They were first recognized as a dairy breed in 1814, but details of their development cannot be traced.

Ayrshires were first imported into the United States in 1822. Other early importations were in 1828 and 1831. The breed is now well established in nearly every State. Many famous Ayrshire herds in the United States have contributed to improvement of the breed.

Scorecards adopted by the Purebred Dairy Cattle Association (see p. 15) describe the Ayrshire in this way:

Color.—Light to deep cherry red, mahogany, brown, or a combination of these colors with white markings preferred, black or brindle objectionable.

Size.—A mature cow in milk should weigh at least 1,200 pounds and a mature bull in breeding condition, at least 1,850 pounds.

Horns.—Inclining upward, refined, medium length, and tapered toward tips. No discrimination for absence of horns.

Crusader's Joyce of Windy Top (fig. 1), a famous Ayrshire cow, produced in her lifetime 206,888 pounds of milk and 8,725 pounds of butterfat. She had 15 living calves—all single births. In her 20th year she produced 13,122 pounds of milk and 630 pounds of butterfat in 305 days on twice-daily milkings. She classified as Very Good under the Ayrshire Association's type classification program.

Neshaminy Preferred (fig. 2) is an outstanding Ayrshire bull. He ranks as a Century Sire. His 358 artificially sired daughters average 10,700 pounds of milk and 448 pounds of butterfat. This is an increase of 638 pounds of milk and 34 pounds of butterfat as compared to their herdmates. His 75 classified daughters average 85.7.

TABLE 1.—*Ayrshire production*

Age class	Pounds of milk	Pounds of butterfat
Yearlings	8,507	353
Junior 2-year-olds	9,088	380
Senior 2-year-olds	9,428	392
Junior 3-year-olds	9,941	416
Senior 3-year-olds	10,122	424
Junior 4-year-olds	10,720	440
Senior 4-year-olds	10,797	447
Cows, 5 to 10 years old	11,363	461
Cows, 10 years old or older	11,167	483

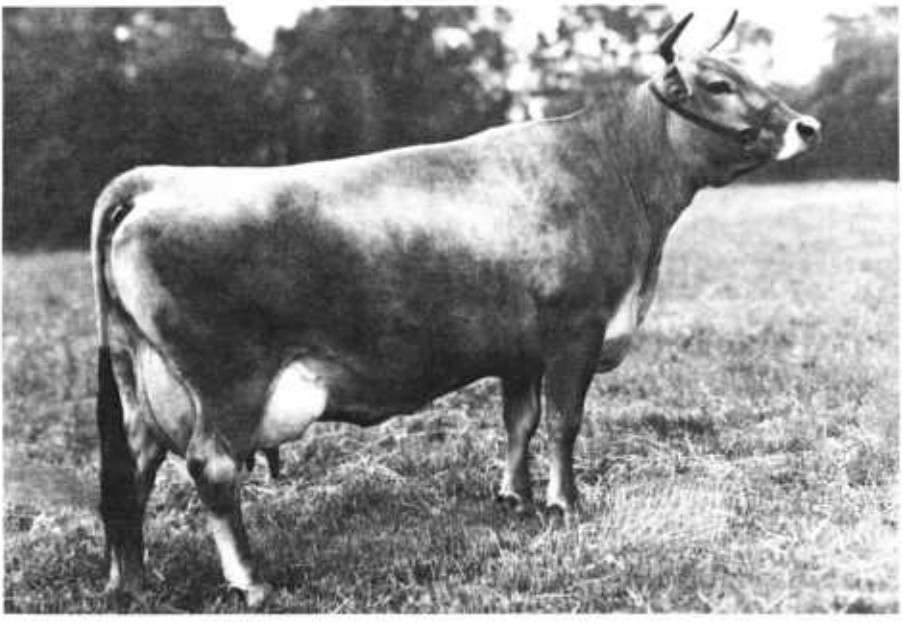

Figure 3.—Brown Swiss cow: Lee's Hill Keeper's Raven. (Courtesy of Brown Swiss Cattle Breeders Association.)

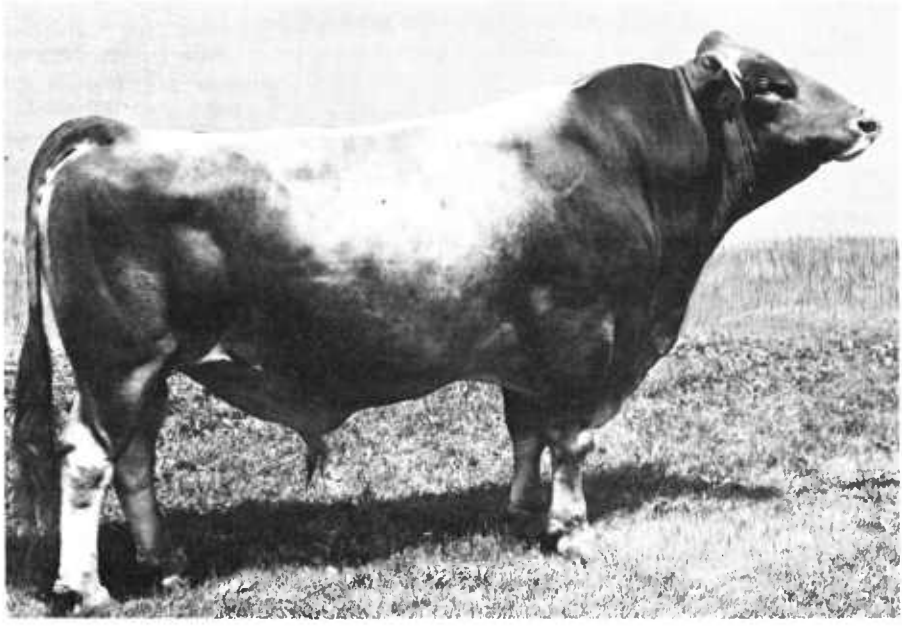

Figure 4.—Brown Swiss bull: Avon View Lorraine's Colonel. (Courtesy of Brown Swiss Cattle Breeders Association.)

Brown Swiss

Brown Swiss dairy cattle originated in Switzerland. Like the Ayrshire, Brown Swiss development cannot be traced.

The first Brown Swiss cattle were brought to the United States in 1869. Other cattle were brought in 1882, 1889, and 1906. All of these importations amounted to only 155 head. Descendants of the 155 fill our famous herds in nearly every State.

Scorecards adopted by the Purebred Dairy Cattle Association describe Brown Swiss in this way:

Color.—Solid brown, varying from light to dark. White or off-color spots objectionable. Females with any white or off-color markings above the underside of the belly or with white core in switch do not meet color standards of the Brown Swiss breed and shall be so designated when registered. Pink noses and light streaks up the side of the face objectionable.

Size.—The minimum weight for mature cows should be about 1,400 pounds, and for mature bulls about 2,000 pounds.

Horns.—Incurving and inclining slightly up. Of medium length, lacking coarseness, tapering toward tips. Polled animals not barred from registry. No discrimination for absence of horns.

Lee's Hill Keeper's Raven (fig. 3) holds the Brown Swiss champion milk record of 34,804.9 pounds of milk and 1,579.28 pounds of butterfat. This yearly lifetime record was started at 9 years and 9 months of age. Classified Excellent, she has a lifetime record of 240,247.4 pounds of milk and 11,144.39 pounds of butterfat.

Avon View Lorraine's Colonel (fig. 4), an outstanding Brown Swiss bull, is in service at the Northern Illinois Breeding Cooperative. He is one of the highest summarized sires of the breed. His 110 artificially sired daughters average 12,213 pounds of milk and 509 pounds of butterfat. This is an increase of 892 pounds of milk and 38 pounds of butterfat as compared to their herdmates. His 79 classified daughters average 83.4.

TABLE 2.—*Brown Swiss production*

Age class	Pounds of milk	Pounds of butterfat
Junior 2-year-olds	8, 843. 7	373. 6
Senior 2-year-olds	9, 021. 9	381. 1
Junior 3-year-olds	9, 898. 9	418. 6
Senior 3-year-olds	10, 190. 3	428. 8
Junior 4-year-olds	10, 656. 9	445. 6
Senior 4-year-olds	10, 740. 5	468. 2
Five year-old-cows	11, 333. 5	470. 7
Mature cows	11, 844. 4	484. 1
Cows, 12 years old and older	10, 966. 0	441. 4

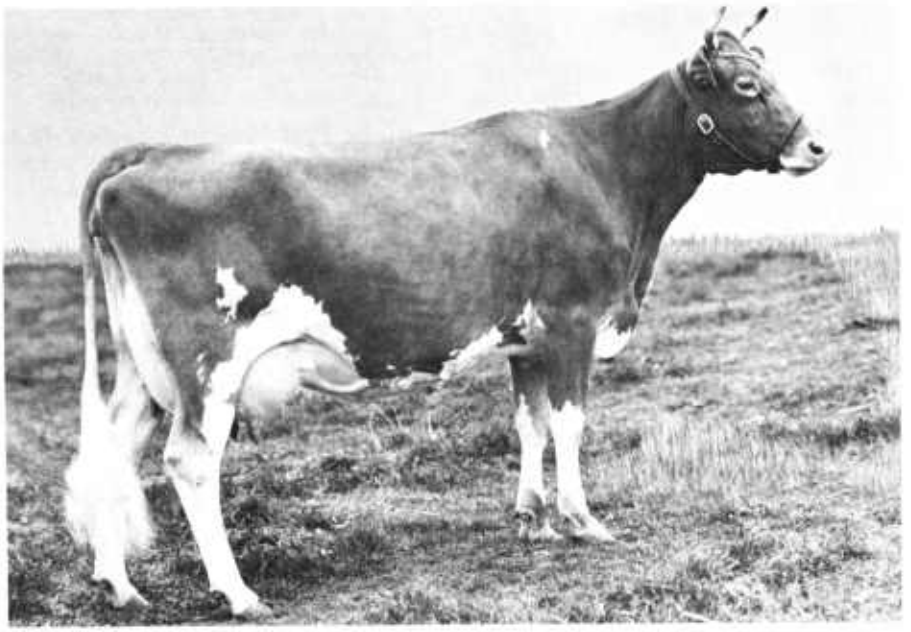

Figure 5.—Guernsey cow: Ideal's Beacon's Rosette. (Courtesy of American Guernsey Cattle Club.)

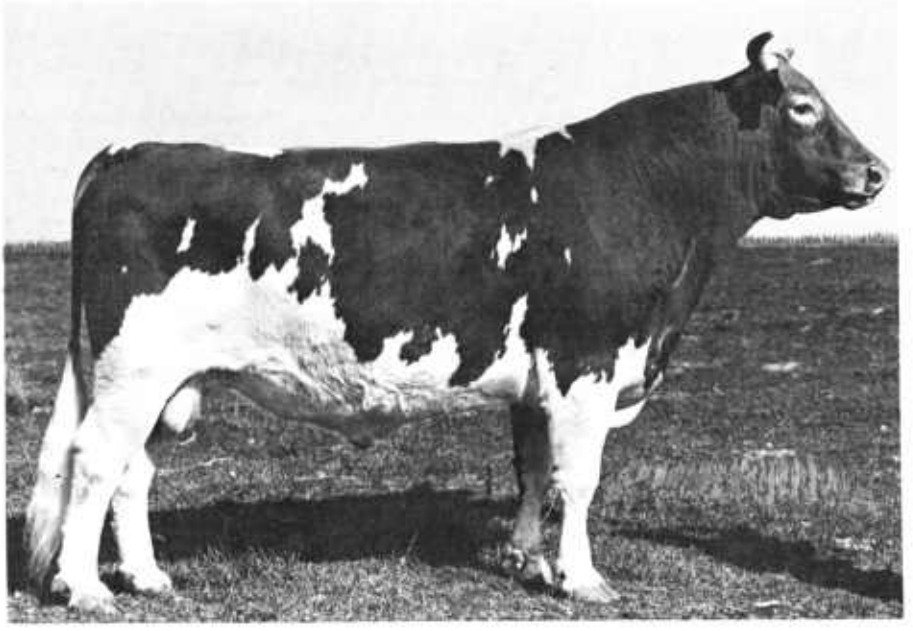

Figure 6.—Guernsey bull: Ideal's Superior. (Courtesy of American Guernsey Cattle Club.)

Guernsey

Guernsey dairy cattle originated on the island of Guernsey, off the coast of England. In 1830 or 1831 the first Guernseys—two heifers and one bull—were imported into America. Descendants of the bull and one heifer appear in Guernsey herds today. Other importations were in 1840, 1870, 1913, and 1914. These importations amounted to about 13,000 animals.

Scorecards adopted by the Purebred Dairy Cattle Association describe the Guernsey in this way:

Color.—A shade of fawn with white markings clearly defined. Skin should show golden yellow pigmentation on the nose, around the eyes, in the ears, in the escutcheon, around the udder, and at the point of the tail.

When other points are equal, a clear or buff muzzle will be favored over a smoky or black muzzle.

Size.—A mature cow in milk should weigh at least 1,100 pounds. "In milk" means in normal condition after having been in milk for 3 to 6 months. A mature bull in breeding condition should weigh about 1,700 pounds.

Ideal's Beacon's Rosette (fig. 5) is the champion lifetime milk and fat producer of the Guernsey breed. In 11 lactations in 4,656 days she produced 222,840 pounds of milk and 10,941 pounds of butterfat. She is classified Excellent in type conformation and is a Gold Star Dam.

Ideal's Superior (fig. 6) is an outstanding Guernsey bull and is recognized as a Gold Star Sire. His breed association proof shows 182 daughters that average 12,556 pounds of milk and 689 pounds of butterfat. His 134 classified daughters average 84.1. He has a USDA summary made on 43 daughters (non–AI). They average 10,996 pounds of milk and 553 pounds of butterfat. This is an increase of 904 pounds of milk and 69 pounds of butterfat as compared to their herdmates.

TABLE 3.—*Guernsey production*

Age class	Pounds of milk	Pounds of butterfat
Junior 2-year-olds	8,365	411
Senior 2-year-olds	8,468	417
Junior 3-year-olds	9,087	448
Senior 3-year-olds	9,245	455
Junior 4-year-olds	9,686	476
Senior 4-year-olds	9,738	475
Mature cows	10,037	480

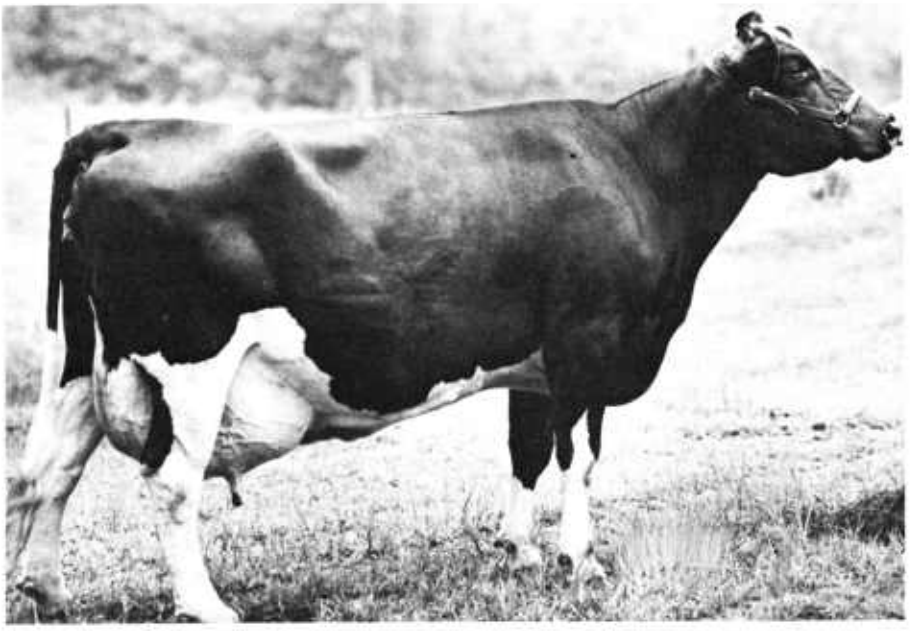

Figure 7.—Holstein cow: Zeldenrust Pontiac Korndyke. (Courtesy of Holstein-Friesian Association of America.)

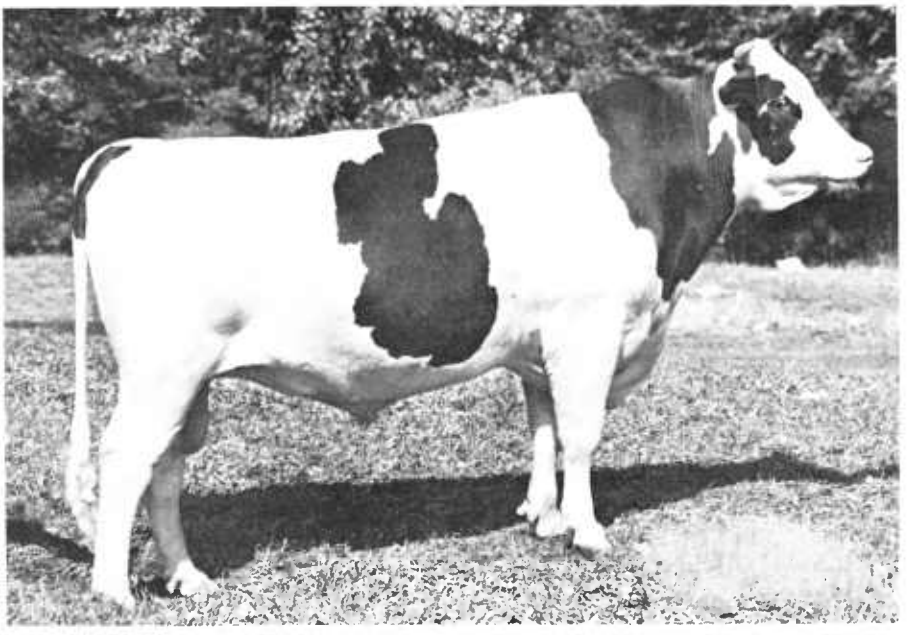

Figure 8.—Holstein bull: Pabst Sir Roburke Rag Apple. (Courtesy of Holstein-Friesian Association of America.)

Holstein-Friesian

Holstein-Friesian dairy cattle (commonly called Holstein in North America and Friesian in many other countries) probably originated in the northern part of the Netherlands.

The earliest settlers from the Netherlands brought the first Holstein cattle to the United States. The most significant importation was in 1861. A bull and four cows from that importation and another bull from an 1857 importation founded a herd in Belmont, Mass., that supplied cattle to 12 States. No Holsteins were imported after 1905.

Scorecards adopted by the Purebred Dairy Cattle Association describe Holstein-Friesian in this way:

Strong masculine qualities in an alert bull possessing Holstein size and vigor and rugged feminine qualities in an alert cow possessing Holstein size and vigor.

Color.—Black and white markings clearly defined. Color markings that bar registry are solid black, solid white, black in switch, black belly, black encircling leg touching hoof, black from hoof to knee or hock, black and white intermixed to give color other than distinct black and white.

Size.—A mature cow in milk should weigh 1,500 pounds or more. A mature bull in breeding condition should weigh 2,200 pounds or more. Calves at birth weigh from 80 to 125 pounds.

Zeldenrust Pontiac Korndyke (fig. 7), produced 306,051 pounds of milk and 11,649 pounds of butterfat in her lifetime. This is an all-time all-breed record for total lifetime production.

Pabst Sir Roburke Rag Apple (fig. 8), an outstanding Holstein bull, has been used extensively throughout the United States. He is classified Excellent in body type and is recognized as a Gold Medal Sire. His 3,067 artificially sired daughters average 13,689 pounds of milk and 503 pounds of butterfat. This is an increase of 808 pounds of milk and 27 pounds of butterfat as compared to their herdmates. His 1,806 classified daughters average 81.2.

TABLE 4.—*Holstein production*

Age class	Pounds of milk	Pounds of butterfat
Junior 2-year-olds	10, 958	404
Senior 2-year-olds	11, 592	427
Junior 3-year-olds	12, 197	450
Senior 3-year-olds	12, 751	470
Junior 4-year-olds	13, 358	492
Senior 4-year-olds	13, 617	502
Mature cows	14, 026	517

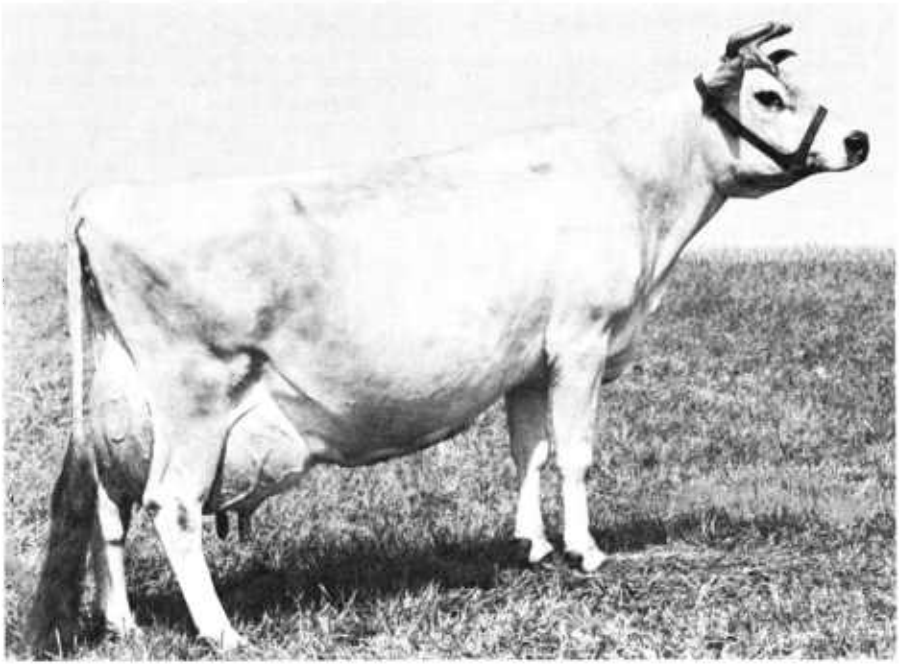

Figure 9.—Jersey cow: Marlu Milady's Fashion. (Courtesy of American Jersey Cattle Club.)

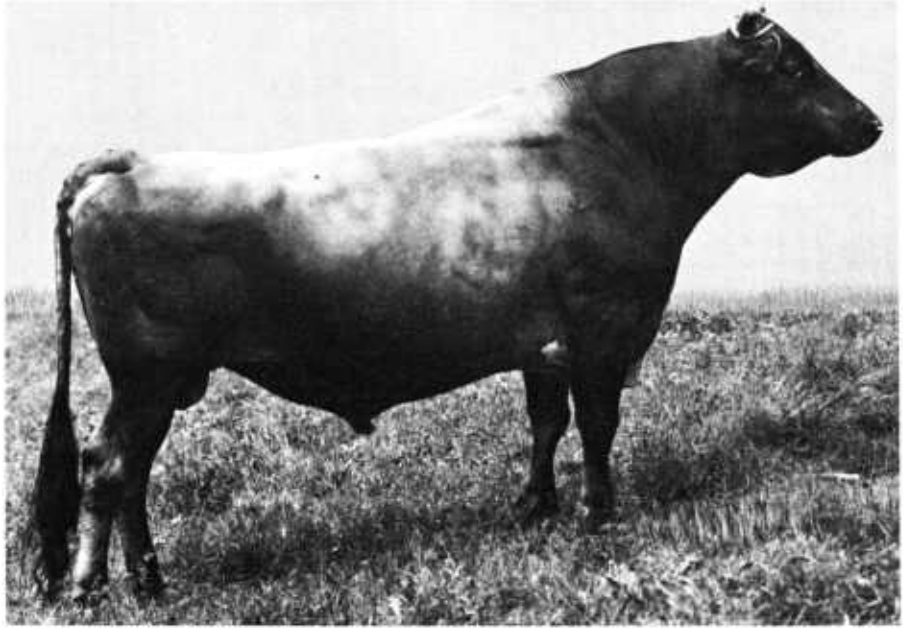

Figure 10.—Jersey bull: Welcome High Lawn Torono. (Courtesy of American Jersey Cattle Club.)

Jersey

Jersey dairy cattle originated on the island of Jersey, off the coast of England.

Importation of Jerseys into the United States began in the early 1800's. Importation has continued since that time, except during war years and during outbreaks of foot-and-mouth disease.

By 1947, about 28,000 imported Jerseys were registered in this country.

Scorecards adopted by the Purebred Dairy Cattle Association describe the Jersey in this way:

Color.—A shade of fawn, with or without white markings.

Size.—A mature cow in milk should weigh about 1,000 pounds. A mature bull in breeding condition should weigh about 1,500 pounds.

Horns.—Inclining, refined, medium length, and tapering toward tips; no discrimination for absence of horns.

Marlu Milady's Fashion (fig. 9) is the leading living lifetime producer of the Jersey breed. In 3,413 days she produced 191,226 pounds of milk and 9,444 pounds of butterfat.

Welcome High Lawn Torono (fig. 10), an outstanding Jersey bull, is a Senior Superior Century Sire. His 209 artificially sired daughters average 10,086 pounds of milk (highest of any Century Sire of the breed) and 520 pounds of butterfat. This is an increase of 1,086 pounds of milk and 54 pounds of butterfat as compared to their herdmates. His 173 classified daughters average 85.2.

TABLE 5.—*Jersey production*

Age class	Pounds of milk	Pounds of butterfat
Yearlings	6, 887	366
Junior 2-year-olds	7, 143	378
Senior 2-year-olds	7, 531	401
Junior 3-year-olds	8, 127	435
Senior 3-year-olds	8, 289	440
Junior 4-year-olds	8, 744	464
Senior 4-year-olds	8, 740	464
Mature cows	9, 103	473

Red Danish

Red Danish is one of the youngest recognized cattle breeds. These cattle originated in Denmark and became a distinct breed about 1878. They were first imported into the United States in 1935.

Mature Red Danish cows weight 1,300 to 1,500 pounds; mature bulls, 1,800 to 2,200. The characteristic red color appears in early crosses with little variation.

As a mature cow, D–66 (fig. 11) from the USDA Red Danish herd at Beltsville, Md., produced 12,661 pounds of milk and 466 pounds of butterfat. She is the offspring of an imported sire and dam.

TABLE 6.—*Red Danish production*

Age class	Pounds of milk	Pounds of butterfat
Junior 2-year-olds	7, 603	308
Senior 2-year-olds	8, 851	357
Junior 3-year-olds	9, 027	360
Senior 3-year-olds	8, 410	341
Junior 4-year-olds	8, 506	353
Senior 4-year-olds	8, 926	359
Mature cows	9, 441	384

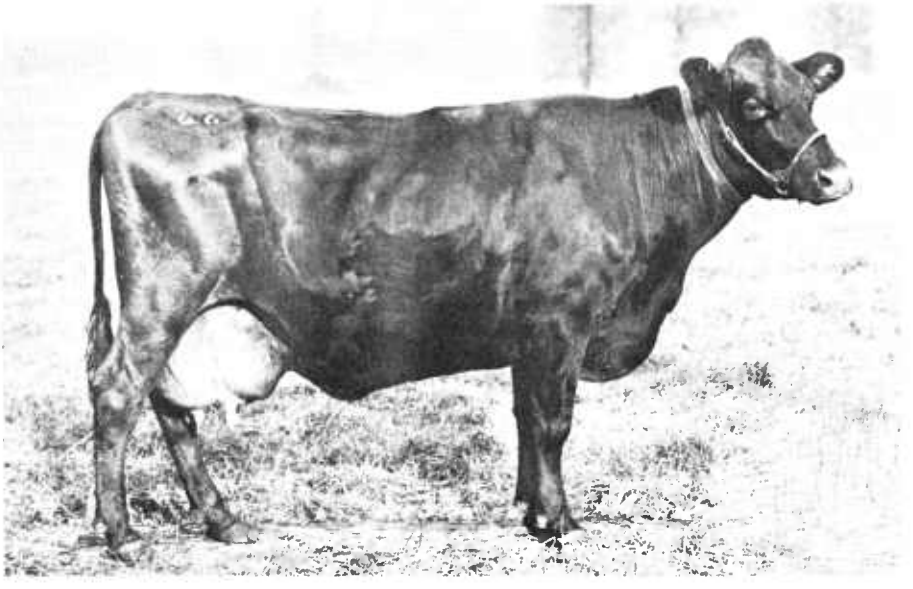

Figure 11.—Red Danish cow: D–66.

DAIRY CATTLE ORGANIZATIONS

Dairy Herd Improvement Association

The Dairy Herd Improvement Association (DHIA) sponsors a program through which dairymen may test their herds. Its facilities are available to any dairyman.

During the first 15 years, the Association's program accumulated nearly 4 million production records for nearly 2 million cows. Dam-and-daughter records for proving sires were also accumulated on about 150,000 bulls. The United States Department of Agriculture began to use these records in 1935 in a nationwide, sire-proving program—a program to find every bull whose daughters will outproduce their mothers.

The U.S. Department of Agriculture cooperates with the different States in coordinating this program. The Department also furnishes the forms used in collecting the production data and maintains the production records on each cow and bull whose owners participate in the program. Detailed information on the Dairy Herd Improvement Association may be obtained from your county agricultural agent or from the U.S. Department of Agriculture, Washington, D.C., 20250.

Purebred Dairy Cattle Association

The Purebred Dairy Cattle Association consists of three representatives from each of the organizations that sponsor the Ayrshire, Brown Swiss, Guernsey, Holstein, and Jersey breeds of dairy cattle in the United States. It seeks to interest dairymen and breeders generally in these five breeds and especially in individual animals of the breeds that it recognizes as being purebred and eligible for registration in the herd books.

Under sponsorship of the Association, the breed organizations have adopted rules and procedures. The rules and procedures apply only to individual members (not to the dairy industry generally) and include—

- Uniform rules for official testing.
- Uniform classification for each breed at State fairs.
- Rules governing artificial insemination of registered dairy cattle.
- A code of ethics for public and private sales.
- Uniform scorecard for judging junior fitting and showmanship contests.
- Showing and judging procedures.

Headquarters for the Purebred Dairy Cattle Association is at Peterborough, N.H.

Dual-Purpose Breeds

A few breeds of cattle have desirable beef form and also produce more milk and butterfat than are usually produced by beef cattle. Examples of dual-purpose breeds are the Milking Shorthorn, the Red Poll, and the Devon. Additional information on beef cattle breeds for beef and for milk may be obtained from your county agricultural agent or from the U.S. Department of Agriculture, Washington, D.C., 20250.

DEFINITIONS

Age Categories

Age-category definitions for the production tabulations used in this bulletin follow. Ages given are those of cows at start of test. All cows were milked twice a day for 305 days.

Category	*Cows that were—*
Junior 2-year-olds	2 to 2½ years old.
Senior 2-year-olds	2½ to 3 years old.
Junior 3-year-olds	3 to 3½ years old.
Senior 3-year-olds	3½ to 4 years old.
Junior 4-year-olds	4 to 4½ years old.
Senior 4-year-olds	4½ to 5 years old.
Mature cows	5 years old or older.

Other Terms

Purebred dairy cattle have the characteristics of a certain breed and a documented, purebred ancestry.

Registered purebreds are purebred dairy animals whose owners have completed the formality of registration. The organization sponsoring a particular breed determines the qualifications needed for registration. Copies of registration rules can be obtained by writing to the various breed associations (see p. 3).

Grade dairy cattle have the characteristics of a particular breed, but are ineligible for registration, usually because their parents are not registered.

Proved sires, in Dairy Herd Improvement Association work (see p. 15), are bulls that have at least five unselected daughters whose production records can be compared with the production records of their respective mothers (dams). If the daughters produce at a high level (either above or near the production level of their dams), the bulls that sired the daughters are known as "good" proved sires. If the daughters produce at a low level, the bulls that sired them are known as "poor" proved sires and their use for breeding purposes is discouraged.

Most of the breed associations have similar procedures for issuing proving information although there is some variation regarding the number of daughters required and the inclusion or omission of the dams' average production.

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